



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/508,925 | 09/24/2004 | Dominic T. Clausi | 2002B038A | 9887 |

23455 7590 11/18/2005

EXXONMOBIL CHEMICAL COMPANY
5200 BAYWAY DRIVE
P.O. BOX 2149
BAYTOWN, TX 77522-2149

EXAMINER

WITHERSPOON, SIKARL A

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1621

DATE MAILED: 11/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/508,925

Applicant(s)

CLAUSI ET AL.

Examiner

Sikarl A. Witherspoon

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-11 and 14-20 is/are rejected.
- 7) ☒ Claim(s) 3,4,12 and 13 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>9/24/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 9 and 18 contain the trademark/trade name Octol® and Dimersol®.

Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a specific process for preparing olefinic materials and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1621

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5, 6, 10, 11, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beadle et al (US 5,410,090).

The instant claims are drawn to an improvement in the hydroformylation of olefins by the cobalt flash process wherein the improvement comprises using acetic acid as the process acid, and at least one of a separation step and a step of adding an alcohol to a performer reactor, as recited in the instant independent claim(s).

Beadle et al teach a method for removing cobalt value from the crude product of a cobalt-catalyzed hydroformylation reaction using airless cobalt demetalling in the cobalt flash cycle (abstract). See column 3, line 63 to column 4, line 37, and column 6, line 44 to column 9, line 68 for details of the specific embodiments of the process.

The differences between Beadle et al and the instant claims are that Beadle et al does not expressly teach an example where acetic acid is used as the process acid, and does not mention that the formate ester of an organic alcohol is made when said alcohol is added to the performer reactor, as claimed herein.

With regard to the first difference, Beadle et al clearly teach at column 2, lines 65 and 66 that the organic acid used in their process can be formic acid or acetic acid. Therefore, the examiner takes the position that while examples in Beadle et al only use formic acid, it would have been obvious to a person of ordinary skill in the art, in conducting the process taught by Beadle et al, to substitute one acid for the other with the reasonable expectation of success.

Art Unit: 1621

With regard to the second difference, while the reference is silent with regard to the formation of a formate ester of an alcohol, Beadle et al clearly teach that during the catalyst performer stage, the cobaltous salt is mixed with a recycling alcohol, such as hexyl alcohol. It would have been obvious to a person of ordinary skill in the art that some formic acid that was originally formed in an oxonation reaction would be present in the performer stage and react with the alcohol to form an ester thereof.

Claims 7-9, and 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beadle et al as applied to claims 1, 2, 5, 6, 10, 11, 14 and 15 above, and further in view of Plank et al (US 4,076,842) and Gubisch et al (US 6,015,928).

The instant claims further limit the process of the claimed invention, wherein the olefinic starting material used in the hydroformylation is made by oligomerizing a lower olefinic material over a zeolite, or using the Octol® or Dimersol® processes.

Beadle et al do not expressly teach how the olefinic starting materials used in their process are made. However, Plank et al teach a crystalline zeolite designated ZSM-23 being used in processes for polymerizing olefins (col.6, lines 8-13); Gubisch et al teach olefinic mixtures being prepared by oligomerization of propenes and butanes, for example, by the Octol® or Dimersol® processes (col. 6, lines 51-66).

It therefore would have been obvious to a person of ordinary skill in the art, at the time the present invention was made, to combine one or both of Plank et al and Gubisch et al with the process taught by Beadle et al, one of ordinary skill being motivated to combine the references by the desire to employ known processes for

Art Unit: 1621

producing the olefinic starting materials that are employed in the hydroformylation using the cobalt flash process taught by Beadle et al.

Claims 3, 4, 12 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikarl A. Witherspoon whose telephone number is 571-272-0649. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

saw


SIKARL A. WITHERSPOON
PATENT EXAMINER